

Application No. : 09/422,208
Filed: : October 19, 1999

changes made to 9, 11, 14, 16, 18, 22, and 24. The attached page is captioned: Version With Markings to Show Changes Made.

7. (Previously Amended) A method of testing a substantially transparent product with an optical tester, the method comprising:

incorporating fluorescent colorant with the product;
exposing the product to ultraviolet light; and
examining the product with an optical testing device which is responsive to the fluorescent colorant when exposed to ultraviolet light.

8. (As Filed) A method of determining whether an injection mold is substantially free from any leftover molding material, the method comprising:

injecting molding material including a fluorescent colorant into a mold to create a workpiece;
releasing the mold;
directing ultraviolet light into at least a portion of the mold with sufficient energy to cause emissions from the fluorescent colorant of any remaining molding material to be detectable; and
when remaining molding material is detected, removing the remaining molding material.

B1 9. (Amended) The method of Claim 8, wherein the fluorescent colorant is substantially transparent in ambient light.

10. (As Filed) The method of Claim 8, wherein the molding material is substantially transparent in ambient light.

B2 11. (Amended) The method of Claim 8, wherein the fluorescent colorant and the molding material are substantially transparent in ambient light.

12. (As Filed) The method of Claim 8, wherein the remaining molding material comprises the workpiece.

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13. (As Filed) The method of Claim 8, wherein the remaining molding material comprises small portions of the workpiece.

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14. (Amended) The method of Claim 8, further comprising:
directing the ultraviolet light on the workpiece; and
inspecting the workpiece based on a reaction of the workpiece to the ultraviolet light.

15. (As Filed) An optical inspection system for determining whether an injection mold is suitable for reinjection of molding materials, the optical inspection system comprising:

a reusable mold which accepts flowable materials comprising a fluorescent colorant, wherein the flowable materials cool to form a workpiece in the shape of the mold; and

a light source which directs ultraviolet light toward the reusable mold with sufficient energy to energize the fluorescent colorant of any leftover flowable materials within the reusable mold.

B4

16. (Amended) The optical inspection system of Claim 15, wherein the fluorescent colorant is substantially transparent in ambient light.

17. (As Filed) The optical inspection system of Claim 15, wherein the flowable materials are substantially transparent in ambient light.

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18. (Amended) The optical inspection system of Claim 15, wherein the flowable materials and the fluorescent colorant are substantially transparent in ambient light.

19. (As Filed) The optical inspection system of Claim 15, wherein the leftover flowable materials comprise the workpiece.

20. (As Filed) The optical inspection system of Claim 15, wherein the leftover flowable materials comprise small portions of the workpiece.

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21. (As Filed) An optical inspection system for determining whether flaws or other abnormalities occurred in a workpiece made from an injection molding process, the optical inspection system comprising:

a light source which directs a first light toward a workpiece made from materials including a fluorescent colorant, wherein the first light comprises light of a wavelength not visible to humans with sufficient energy to cause the fluorescent colorant to emit a second light;

an inspection device which inspects the workpiece by detecting the second light, wherein the second light comprises light of a wavelength visible to humans.

B6

22. (Amended) The optical inspection system of Claim 21, wherein the fluorescent colorant is substantially transparent in ambient light.

23. (As Filed) The optical inspection system of Claim 21, wherein the materials are substantially transparent in ambient light.

B7

24. (Amended) The optical inspection system of Claim 21, wherein the materials and the fluorescent colorant are substantially transparent in ambient light.

REMARKS

Claims 7-24 are pending in this application. The Office Action objected to Claim 8-9, 11, 14, 16, 18, 22, and 24 and rejected Claims 7-24. By way of the present amendment, the Applicant amended Claims 9, 11, 14, 16, 18, 22, and 24 to correct minor informalities such as misspellings and typographical errors. Accordingly, the Applicant submits that the scope of the amended claims has not been changed by the present amendments.

OBJECTIONS TO CLAIMS

The Office Action objected to Claims 8-9, 11, 14, 16, 18, 22, and 24 for formalistic reasons. Specifically, Claims 9, 11, 14, 16, 18, 22, and 24 included minor informalities such as misspellings and typographical errors pointed out by the Office Action. The Applicant